

CLAIMS

1. A method of identifying an agent that inhibits cancer cells, comprising:
 - a. introducing said agent into cells, wherein said agent binds to a nucleic acid comprising SEQ ID NOS:6, 13, 1, 2, 3, 4 or 5, or comprising the RNA correlate of SEQ ID NOS:6, 13, 1, 2, 3, 4 or 5; and
 - b. measuring the level of inhibition of said cells, where an increase in level indicates said agent inhibits cancer cells.
2. The method of claim 1, wherein said nucleic acid comprises SEQ ID NOS:6, 13, 1, 10 2, 3, 4 or 5.
3. The method of claim 1, wherein said nucleic acid comprises the RNA correlate of SEQ ID NOS:6, 13, 1, 2, 3, 4 or 5.
- 15 4. The method of claim 1, wherein said nucleic acid consists of SEQ ID NOS:6, 13, 1, 2, 3, 4 or 5.
5. The method of claim 1, wherein said nucleic acid consists of the RNA correlate of SEQ ID NOS:1, 2, 3, 4, 5, 6 or 40.
20
6. The method of claim 1, wherein said inhibition is measured by an apoptosis assay, where an increase in the level of apoptosis indicates that said agent inhibits said cells.
- 25 7. The method of claim 1, wherein said inhibition is measured by a proliferation assay, where a decrease in the rate of cell division indicates that said agent inhibits said cells.
8. The method of claim 1, wherein said cells are cancerous.
9. The method of claim 1, wherein said cells are selected from the group consisting of
30 HeLa cells, A2058 cells, DLD1 cells, T47D cells, ASPC1 cells and JH-MG cells.

10. A method of identifying an agent that inhibits cancer cells, comprising:
 - a. introducing said agent into cells, wherein said agent binds to a compound comprising an amino acid sequence selected from the group consisting of residues 158 to 5 405 of SEQ ID NO:12; residues 175 to 414 of SEQ ID NO:14; residues 96 to 321 of SEQ ID NO:7; residues 32 to 289 of SEQ ID NO:8; residues 26 to 320 of SEQ ID NO:9; residues 143 to 170 of SEQ ID NO:10; residues 358 to 384 of SEQ ID NO:10; and residues 47 to 550 of SEQ ID NO:11; and
 - b. measuring the level of inhibition of said cells, where an increase in level indicates 10 said agent inhibits cancer cells.
11. The method of claim 10, wherein said agent binds to a compound selected from the group consisting of residues 158 to 405 of SEQ ID NO:12; residues 175 to 414 of SEQ ID NO:14; residues 96 to 321 of SEQ ID NO:7; residues 32 to 289 of SEQ ID NO:8; residues 15 26 to 320 of SEQ ID NO:9; residues 143 to 170 of SEQ ID NO:10; residues 358 to 384 of SEQ ID NO:10; and residues 47 to 550 of SEQ ID NO:11.
12. The method of claim 10, wherein said agent binds to a compound comprising a sequence selected from the group consisting of SEQ ID NOS:12, 14, 7, 8, 9, 10 and 11. 20
13. The method of claim 10, wherein said agent binds to a compound selected from the group consisting of SEQ ID NOS: 12, 14, 7, 8, 9, 10 and 11.
14. The method of claim 10 wherein said inhibition is measured by an apoptosis assay, 25 where an increase in the level of apoptosis indicates that said molecule inhibits said cells.
15. The method of claim 10, wherein said inhibition is measured by a proliferation, assay where a decrease in the rate of cell division indicates that said molecule inhibits said cells. 30
16. A method of inhibiting cancer cells, comprising introducing into said cells a molecule that binds to a nucleic acid comprising SEQ ID NOS: 6, 13, 1, 2, 3, 4, or 5, or

comprising the RNA correlate of SEQ ID NOS: 6, 13, 1, 2, 3, 4, or 5, whereby the level of cell inhibition is increased.

17. The method of claim 16, wherein said nucleic acid comprises SEQ ID NOS: 6, 13,
5 1, 2, 3, 4, or 5.

18. The method of claim 16, wherein said nucleic acid comprises the RNA correlate of SEQ ID NOS: 6, 13, 1, 2, 3, 4, or 50.

10 19. The method of claim 16, wherein said molecule is an siRNA.

20. The method of claim 19, wherein said siRNA is selected from the group consisting of SEQ ID NOS: 15 to 37.

15 21. A method of identifying a molecule that inhibits cancer cells, comprising:
a. introducing said molecule into cells, wherein said molecule down-modulates a compound comprising the RNA correlate of SEQ ID NOS: 6, 13, 1, 2, 3, 4, or 5; and
b. measuring the level of down-modulation of said compound, where an increase in level of down-modulation indicates that said molecule inhibits cancer cells.

20 22. The method of claim 21, wherein said down-modulation is measured by a reporter assay using a reporter gene.

25 23. The method of claim 22, wherein said reporter gene expresses a protein selected from the group consisting of beta-lactamase, luciferase, green fluorescent protein, beta-galactosidase, secreted alkaline phosphatase, human growth hormone and chlororamphenicol acetyltransferase.

30 24. A method of identifying a molecule that inhibits cancer cells, comprising:
a. introducing said molecule into cells, wherein said molecule down-modulates a compound comprising SEQ ID NOS: 12, 14, 7, 8, 9, 10 or 11; and

- b. measuring the level of down-modulation of said compound, where an increase in level of down-modulation indicates that said molecule inhibits cancer cells.
25. The method of claim 24, wherein said molecule binds to a compound selected from
5 the group consisting of SEQ ID NOS: 12, 14, 7, 8, 9, 10 and 11.
26. The method of claim 24, wherein said down-modulation is measured by an immunoassay using an antibody specific to said compound.
- 10 27. The method of claim 26, wherein said immunoassay is an immunofluorescence, immunochemistry or immunoprecipitation assay.